Patch Release Note

Patch 86241-02
For Rapier Switches and AR800 Series
Modular Switching Routers

Introduction

This patch release note lists the issues addressed and enhancements made in patch 86241-02 for Software Release 2.4.1 on existing models of Rapier L3 managed switches and AR800 Series L3 modular switching routers. Patch file details are listed in Table 1.

Table 1: Patch file details for Patch 86241-02.

Base Software Release File	86s-241.rez
Patch Release Date	25-Oct-2002
Compressed Patch File Name	86241-02.paz
Compressed Patch File Size	132368 bytes

This release note should be read in conjunction with the following documents:

- Release Note: Software Release 2.4.1 for Rapier Switches, AR300 and AR700 Series Routers, and AR800 Series Modular Switching Routers (Document Number C613-10338-00 Rev A) available from *www.alliedtelesyn.co.nz/documentation/documentation.html*.

- Rapier Switch Documentation Set for Software Release 2.4.1 available on the Documentation and Tools CD-ROM packaged with your switch, or from *www.alliedtelesyn.co.nz/documentation/documentation.html*.

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Features in 86241-02

Patch 86241-02 includes all issues resolved and enhancements released in previous patches for Software Release 2.4.1, and the following enhancements:

PCR: 02103   **Module: SWI**   **Network affecting: No**

IPX traffic passing between two switch instances using VLAN for Rapier48 now operates correctly.

PCR: 02210   **Module: DNS Relay**   **Network affecting: No**

Buffer leaks occurred when DNS relay was enabled. This issue has been resolved.

PCR: 02214   **Module: IPG**   **Network affecting: No**

A buffer leak occurred when a large number of flows (over 4000) were in use and needed to be recycled. This issue has been resolved.

PCR: 02220   **Module: SWI**   **Network affecting: No**

The EPORT parameter in the ADD SWITCH L3FILTER ENTRY and SET SWITCH L3FILTER ENTRY commands was matching multicast and broadcast packets with software filtering. This issue has been resolved.

PCR: 02236   **Module: FIREWALL**   **Network affecting: No**

Sometimes the retransmission of an FTP packet was not permitted through the Firewall. This issue has been resolved.

PCR: 02245   **Module: VRRP**   **Network affecting: No**

VRRP returned an incorrect MAC address for an ARP request. This issue has been resolved.

PCR: 02263   **Module: VRRP**   **Network affecting: No**

The virtual MAC address was used as the source MAC for all packets forwarded on an interface associated with a Virtual Router (VR). This was confusing when multiple VRs were defined over the same interface because only one virtual MAC address was ever used. The other virtual MAC addresses (for the other VR's) were only used if the source IP address matched the VR's IP address. To avoid this confusion, the system MAC address is now always used unless the source IP address of the packet is the same as the VR's IP address.

PCR: 02267   **Module: BGP**   **Network affecting: No**

When route aggregation was enabled, the atomic aggregate was not being set. This issue has been resolved.

PCR: 02268   **Module: FIREWALL**   **Network affecting: No**

HTTP requests from a fixed IP address were erroneously reported as a host scan attack in the Firewall deny queue. This issue has been resolved.

PCR: 02272   Module: IPG, PIM, SWI   Network affecting: No

The following issues have been resolved:

- The RESET PIM INTERFACE=VLAN command was not working correctly.

- Packets with Time to Live (TTL) set to less than 4 were not being forwarded.

- VLAN tags were not being inserted into IP multicast packets on multi-tagged ports.

- A fatal error occurred when PIM and RIP were both running.

PCR: 02274   Module: TPAD   Network affecting: No

ARL message interrupts have been re-enabled after a software table rebuild to fix synchronisation of the software forwarding database with the hardware table.

PCR: 02276   Module: FIREWALL   Network affecting: No

The CREATE CONFIG command did not save the SOURCEPORT parameter to the configuration file when the low value of the source port range was set to zero. This issue has been resolved.

PCR: 02277   Module: DVMRP   Network affecting: No

Report sending and default routes were not working correctly. Also, the SHOW CONFIGURATION DYNAMIC and SHOW CONFIGURATION=DVMRP commands were not working correctly. These issues have been resolved.

PCR: 02280   Module: TELNET, TTY   Network affecting: No

TELNET sessions are now closed with "^D" only when the session is in the login state.

PCR: 02291   Module: DHCP   Network affecting: No

DHCP now processes *Discover* messages smaller than 300 bytes.

PCR: 02292   Module: IPSEC   Network affecting: No

IPSec no longer logs packets that match an ACTION=ALLOW policy. The overhead of this logging was affecting non-IPSec traffic.

PCR: 02294   Module: IKMP   Network affecting: No

The LOCALRSAKEY parameter in the CREATE ISAKMP POLICY and SET ISAKMP POLICY commands was not accepting the value zero. This issue has been resolved.

PCR: 02298   Module: IPSEC   Network affecting: No

The PURGE IPSEC command caused a fatal error. This issue has been resolved.

PCR: 02299   **Module: VRRP**   **Network affecting: No**

If a packet with a destination IP address equal to a VRRP IP address was received when the router didn't own the IP address, (because it didn't have an interface with that IP address) the router incorrectly tried to forward the packet and send an ICMP "redirect" message to the source. Now, if such a packet is received, it will be discarded and an ICMP "host unreachable" message will be sent to the source.

PCR: 02301   **Module: IPG**   **Network affecting: No**

If a DNS relay agent was configured with overlapping subnets, sometimes the DNS server response was returned to the client with a source IP address of an interface on the relay agent that was different from the interface the request was received on. This issue has been resolved.

PCR: 02302   **Module: IPv6**   **Network affecting: No**

The default router lifetime value has been corrected. Also, the SET IPV6 INTERFACE command now updates valid and preferred lifetimes correctly.

PCR: 02303   **Module: INSTALL**   **Network affecting: No**

When enabling or disabling feature licences, a message will now be generated with a warning that changes to feature licences may not take effect until after a reboot.

PCR: 02304   **Module: VRRP**   **Network affecting: No**

VRRP used the wrong source IP address in ICMP redirects. RFC 2338 states that the source IP address of ICMP redirects should be the IP address that the end host used when making its next hop routing decision. In the case of a packet sent to a VRRP virtual MAC address, this is the primary VRRP IP address associated with the MAC address, provided such a VR exists and is in the master state. This issue has been resolved.

PCR: 02309   **Module: STP**   **Network affecting: No**

On models except Rapier *i* Series Switches, the ENABLE STP DEBUG PORT command did not work correctly. This issue has been resolved.

PCR: 02311   **Module: SWI**   **Network affecting: No**

It was possible to set the trunk speed to 10/100M, even if the port within the trunk was not capable of this speed. This issue has been resolved.

PCR: 02313   **Module: IPV6**   **Network affecting: No**

The SHOW IPV6 INTERFACE command now shows the address lifetime aging status that is determined by the DECREMENT parameter in the ADD IPV6 INTERFACE command. The default valid and preferred address lifetimes have been changed to 30 days and 7 days respectively.

PCR: 02320   **Module: IPV6**   **Network affecting: No**

The interface address preferred lifetime was not operating correctly. This issue has been resolved.

PCR: 02321   **Module: FR**   **Network affecting: No**

A fatal error occurred when the command SET FR=0 LMI= was executed if the LMI was already set to ANNEXA, ANNEXB or ANNEXD. This issue has been resolved.

PCR: 02326   **Module: IPv6**   **Network affecting: No**

A fatal error occurred when a PING was executed over an IPV6 tunnel that had previously been deleted. Also, packet forwarding with link-local addresses was not working correctly. These issues have been resolved.

PCR: 02327   **Module: IPG/FIREWALL**   **Network affecting: No**

In some situations, multihomed interfaces caused the Firewall to apply NAT and rules incorrectly when packets were received from a subnet that was not attached to the receiving interface. This issue has been resolved.

PCR: 02328   **Module: BGP**   **Network affecting: No**

BGP was not sending a withdraw message to a peer for a withdrawn or replaced route when the new best route came from that peer. This issue has been resolved.

PCR: 02330   **Module: IPv6**   **Network affecting: No**

A buffer leak was occurring in IPv6 fragmentation. This issue has been resolved.

PCR: 02331   **Module: IPG, ETH**   **Network affecting: No**

IP is now informed when an Ethernet interface goes up or down, after a 2.5 second delay.

PCR: 02332   **Module: IPSEC**   **Network affecting: No**

The sequence number extracted from the AH and ESP header was in the wrong endian mode, which caused an FTP error with IPSEC anti-replay. This issue has been resolved.

PCR: 02334   **Module: FIREWALL**   **Network affecting: No**

It is now possible to set the domain name of the SMTP server to none (0.0.0.0) with the SET FIREWALL POLICY SMTPDOMAIN command, even if a server name has not previously been specified.

PCR: 02335   **Module: CLASSIFIER**   **Network affecting: No**

The SHOW CLASSIFIER command was not displaying Layer 3 information if the classifier had been created with the parameters ETHFORMAT=SNAP and PROTOCOL={IP|0000000800}. This issue has been resolved.

PCR: 02343   **Module: PPP**   **Network affecting: No**

When acting as a PPPoE Access Concentrator (AC), if a PPPoE client sent discovery packets without the "host-unique" tag, the discovery packets sent by the AC were corrupted. This issue has been resolved.

PCR: 02346   **Module: BGP, IPG**   **Network affecting: No**

It is now possible to set a preference value for dynamically learned routes based on their protocol using the command:

```
SET IP ROUTE PREFERENCE={DEFAULT|1..65535}
    PROTOCOL={BGP-EXT|BGP-INT|OSPF-EXT1|OSPF-EXT2|OSPF-INTER|
    OSPF-INTRA|OSPF-OTHER|RIP}
```

PCR: 02347   **Module: SWI**   **Network affecting: No**

The CREATE CONFIGURATION command was not correctly generating the DISABLE SWITCH HWFILTER and DISABLE SWITCH L3FILTER commands. This issue has been resolved.

PCR: 02348   **Module: ENCO**   **Network affecting: No**

When the PAC card was under severe load, the related driver occasionally did not fully transfer all result data from the chip. This caused an *actCmdFail* error. This issue has been resolved.

PCR: 02354   **Module: SCC, SYN, PPP**   **Network affecting: No**

In a previous patch, a fatal error occurred after a RESTART ROUTER command was executed when using PPP over SYN. Also, on AR745 models, PPP was using an 8 MB boundary instead of a 16 MB boundary. These issues have been resolved.

PCR: 02357   **Module: FR**   **Network affecting: No**

The following issues have been resolved:

- PIM was not sending Hello messages over a Frame Relay (FR) interface.

- A fatal error occurred if 64 was entered as the interface value in the DESTROY FRAMERELAY command. The command now only accepts 0-63 for this parameter.

- The ADD FRAMERELAY DLC command incorrectly accepted a TYPE parameter. Also, this command was not accepting the ENCAPSULATION parameter.

- The CREATE CONFIGURATION command incorrectly generated the CIR and CIRLIMITED parameters for the ADD FRAMERELAY DLC command.

- FR interfaces with static DLCs were always shown as DOWN. The status of the interface was not being updated when a circuit was added to the interface.

PCR: 02359   **Module: IPG**   **Network affecting: No**

When an IP Multihomed interface was used as an OSPF interface, neighbour relationships were only established if the IP interface for OSPF was added first in the configuration. Now, OSPF establishes neighbour relationships regardless of the IP Multihomed interface configuration order.

PCR: 02363   **Module: FFS, FILE, TTY**   **Network affecting: No**

The FLASH compaction process is now transparent to the file edition process. The FLASH system is now more stable.

PCR: 02365   **Module: SWI**   **Network affecting: No**

Address learning on the mirror port is now correctly re-enabled when it is no longer the mirror port.

PCR: 02367   **Module: SWI**   **Network affecting: No**

New commands have been added to enable the addition and deletion of static multicast addresses to and from the multicast forwarding table. The new commands are:

```
ADD SWITCH MULTICASTADDRESS IP=ipadd VLAN=vlan-id
   PORT=port-list

DELETE SWITCH MULTICASTADDRESS IP=ipadd VLAN=vlan-id
```

PCR: 02369   **Module: IPG**   **Network affecting: No**

When the SET IP ROUTE command was executed to change any parameter other than METRIC1, which is the RIP metric, the RIP metric was reset to 1. This metric is now only updated if a value for the parameter is specified.

PCR: 02371   **Module: FIREWALL**   **Network affecting: No**

When the system time was set to a time that was before or significantly after the current time, Firewall sessions were prematurely deleted. This issue has been resolved.

PCR: 02376   **Module: PPP**   **Network affecting: No**

When the PPP ONLINELIMIT was exceeded for PPP over TDM, the PPP link stayed open, allowing Link Quality Report (LQR) packets to be transmitted. This caused the *ifOutOctets* counter to increment. Now, if the ONLINELIMIT is exceeded, the link will close.

PCR: 02378   **Module: SWI**   **Network affecting: No**

Entering 63 for the EPORT parameter in the ADD SWITCH L3FILTER command caused a fatal error. This parameter now accepts the values 63 and 64.

PCR: 02395   **Module: VRRP, TRG**   **Network affecting: No**

The SHOW VRRP command now shows the number of trigger activations for the Upmaster and Downmaster triggers.

PCR: 02397   **Module: DVMRP**   **Network affecting: No**

After a prune lifetime had expired, the interface was not joined back to the DVMRP multicast delivery tree. This issue has been resolved.

PCR: 02398   **Module: IPV6**   **Network affecting: No**

The following issues have been resolved:

- It was possible to assign the same network on different IPV6 interfaces
- The loopback address was being added to other interfaces
- The tunnel configuration was not showing correctly in IPV6 configuration commands

RIPv6 now sets the metric of routes for interfaces that are DOWN to 16, and immediately sends responses when the link status of VLAN interfaces changes.

PCR: 02399   Module: TRACE   Network affecting: No

The Trace utility has been modified. Previously, Trace sent a group of packets at once and waited for multiple responses in order to assess the minimum, maximum and average time to cover a certain "hop distance" towards the target host. Now Trace sends each packet in each group individually, and waits either for a response or a time-out before sending the next packet in the group.

PCR: 02401   Module: IPV6   Network affecting: No

Neighbour discovery and PIM6 caused a fatal error when IPv6 was not enabled, or when the IPv6 feature license was not present. This issue has been resolved.

PCR: 02402   Module: SNMP, CORE, SHOW,   Network affecting: No
                    FILE

SNMP MIB support has been enhanced for CPU utilisation and file statistics. MIB support has been added for Allied Telesyn contact details and fast buffers.

PCR: 02403   Module: STP   Network affecting: No

A watchdog timeout occurred when the command ENABLE STP PORT was executed. This issue has been resolved.

PCR: 02406   Module: IPV6   Network affecting: No

A Router-Alert option has been added. Also, the SHOW IPV6 MLD INTERFACE command now works correctly.

PCR: 02409   Module: IPG   Network affecting: No

A warning now appears when the DELETE IP INTERFACE command is executed before the DELETE DVMRP INTERFACE command.

PCR: 02410   Module: VRRP   Network affecting: No

VRRP pre-empt mode was not working with advertisement updates of 1 second or more because this did not allow for interface start time on startup. Now a check is made to verify that interfaces are UP before timers are started.

PCR: 02411   Module: IPV6   Network affecting: No

The SHOW TCP command was not showing the listening status for IPv6.

PCR: 02412   Module: IPV6   Network affecting: No

An ISDN call was activated by IPv6 Router Advertisements over IPv6 tunnel interfaces. This issue has been resolved.

PCR: 02415   Module: IPG   Network affecting: No

Packets with a RIP source address and next hop address that are not on the same subnet as the interface will now be processed. If the received next hop is not on the same subnet, it is treated as 0.0.0.0.

PCR: 02418   **Module: IPV6**   **Network affecting: No**

ICMPv6 was returning an error for non-zero fragment offsets. This issue has been resolved.

PCR: 02421   **Module: PIM**   **Network affecting: No**

The GUI was incorrectly accepting multiple entries for VLANs. This issue has been resolved.

PCR: 02422   **Module: GARP**   **Network affecting: No**

The GUI was returning incorrect GARP counters. This issue has been resolved.

PCR: 02428   **Module: IPV6**   **Network affecting: No**

Link-local address behaviour was incorrect. Also, the PUBLISH parameter was not updated by the SET IPV6 INTERFACE command, or displayed in the SHOW IPV6 INTERFACE command. These issues have been resolved.

PCR: 02450   **Module: IPV6**   **Network affecting: No**

Large local packets were not being fragmented. Also, the More Fragment flag in the IPv6 fragment header was not being set correctly. These issues have been resolved.

PCR: 02452   **Module: IPv6**   **Network affecting: No**

Received Router Advertisements (RAs) were discarded when the interface was enabled to send RAs. This issue has been resolved.

PCR: 02457   **Module: IPV6**   **Network affecting: No**

The IPv6 priority filter was not matching correctly when TCP was specified as the protocol type. This issue has been resolved.

PCR: 02463   **Module: DVMRP, IPG**   **Network affecting: No**

Multicast multi-homing was not working correctly. This issue has been resolved.

Features in 86241-01

Patch file details are listed in Table 2:

Table 2: Patch file details for Patch 86241-01.

Base Software Release File	86s-241.rez
Patch Release Date	26-July-2002
Compressed Patch File Name	86241-01.paz
Compressed Patch File Size	27732 bytes

Patch 86241-01 includes the following enhancements:

PCR: 02036   Module: SWITCH   Network affecting: No

A new command allows the Layer 3 aging timer to be changed:

    SET SWITCH L3AGEINGTIMER=<seconds>

where seconds can be 30 - 43200. After each cycle of the ageing timer, all existing Layer 3 entries with the hit bit set will have the hit bit reset to zero, and all existing Layer 3 entries with the hit bit set to zero will be deleted.

The SHOW SWITCH command output now displays the Layer 3 ageing timer value.

PCR 02138   Module: SWI   Network affecting: No

The built in Self Test Code for all Rapiers, except G6, has been improved to enhance the detection of faults in switch chip external packet memory.

PCR: 02158   Module: FIREWALL   Network affecting: No

When a TCP RST/ACK was received by a firewall interface, the packet that was passed to the other side of the firewall lost the ACK flag, and had an incorrect ACK number. This issue has been resolved.

PCR: 02185   Module: VRRP   Network affecting: No

The SHOW CONFIG DYNAMIC=VRRP command was not showing port monitoring and step values correctly. This issue has been resolved.

PCR: 02229   Module: IPG   Network affecting: No

The PURGE IP command now resets the IP route cache counters to zero.

PCR: 02240   Module: SWI   Network affecting: No

The SENDCOS filter action did not operate correctly across switch instances. This was because the stacklink port on the Rapier 48 did not correctly compensate for the stack tag on frames received via the filter. This issue has been resolved.

PCR: 02241   Module: FIREWALL   Network affecting: No

Firewall subnet NAT rules were not working correctly from the private to the public side of the firewall. Traffic from the public to private side (destined for subnet NAT) was discarded. These issues have been resolved. ICMP traffic no longer causes a RADIUS lookup for access authentication, but is now checked by ICMP handlers for attacks and eligibility. If the ICMP traffic matches a NAT rule, NAT will occur on inbound and outbound traffic. HTTP 1.0 requests sometimes caused the firewall HTTP proxy to close prematurely. Cached TCP sessions were sometimes not hit correctly. These issues have been resolved.

PCR: 02242   Module: IPG   Network affecting: No

On a Rapier 24, adding an IP interface over a FR interface caused an ASSERT debug fatal error. This issue has been resolved.

PCR: 02250   Module: FIREWALL   Network affecting: No

Sometimes the Firewall erroneously used NAT. This issue has been resolved.

PCR: 02259   **Module: DHCP, IPG**   **Network affecting: No**

A dual Ethernet router was incorrectly accepting an IP address from a DHCP server when the offered address was on the same network as the other Ethernet interface. An error is now recorded when DHCP offers an address that is in the same subnet as another interface.

Availability

Patches can be downloaded from the Software Updates area of the Allied Telesyn web site at *www.alliedtelesyn.co.nz/support/updates/patches.html*. A licence or password is not required to use a patch.